

2003-19

**ENVIRONMENTAL ASSESSMENT**  
**UPGRADE PERIMETER SECURITY**  
**DAVIS-MONTHAN AFB**

7 July 2003

C.W. Miller, Ph.D.

Report Documentation Page				Form Approved OMB No. 0704-0188	
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## SUMMARY OF ENVIRONMENTAL ASSESSMENT BY SECTION

1.0 Outlines the purpose of and need for action and the process of identifying relevant environmental issues.

2.0 Provides a description of the Proposed Action and reasonable alternatives that have been identified and provides a comparative summary table of the effects of the alternatives on the environment.

3.0 Presents the affected environment under baseline conditions, providing a basis for analyzing the impacts of alternatives.

4.0 Presents the results of the environmental analysis (summary in section 2.0 derives from this).

Appendix A includes a detailed map of the particular project.

Appendix B includes documentation of authority for undertaking the project and other items of importance for coordination of the effort among various entities.

## ENVIRONMENTAL ASSESSMENT

### 1.0 PURPOSE AND NEED FOR ACTION

The National Environmental Policy Act of 1969 (NEPA) requires preparation of an Environmental Assessment (EA) by the responsible federal agency for certain projects. Details of the preparation of this EA are mandated by the Council of Environmental Quality (CEQ) in the series of regulations 40 CFR 1500-1508 as mandated by NEPA. This project is sufficient to require an EA which will be available for inspection in Rm. 216 of Bldg 4300 at DMAFB, 355 CES/CEVA. Notice of this availability will be made by 355 WG/PA through the *Desert Airman*, through the DMAFB Intranet web site, and possibly other sources as well.

The 355<sup>th</sup> Security Forces Squadron (355 SFS) at DMAFB has identified a major upgrade of security measures along the perimeter of DMAFB as a major issue for compliance with DOD 2000.12H. Though a fence had been present along the same identified line for many years, that fence is now so deteriorated as to be totally ineffectual. Lengthy sections of the fence are entirely missing, with native vegetation having covered these sections. A map in Appendix A shows the location of the fence line.

#### 1.1 PURPOSE AND NEED

At present the fence which provides a security barrier in the southwestern area of DMAFB has become severely deteriorated. Approximately one third of the fence is completely missing with desert vegetation growing over the former fence line. Further, the remaining sections of the existing fence are three-strand barbed wire similar to that used in farming and ranching lands, and are seriously deteriorated. Hence the total length of the fence of 37,000 feet is seriously compromised from the security perspective. In addition, no fence at all is present in much of the immediate area of the flight line, though the northern and western margins of the installation do have a fence present. An entirely new second fence extending linearly approximately 32,000 feet along the margin of DMAFB in the westerly area of the installation in the vicinity of the flight line would provide a significant security upgrade. Hence this document addresses two separate segments of fence of 37,000 feet in the east and 32,000 feet in the west. In addition approximately 550 feet of existing fence which extends east from a point near the Swan Gate would be upgraded.

The proposed fence construction and replacement in some areas at DMAFB would provide the 355 SFS with a much stronger deterrent to casual incursion events and a means of promoting more effective response to more serious incursion incidents.

#### 1.2 DECISIONS TO BE MADE

After considering this EA and other pertinent information, the Chairperson of the Environmental Protection Committee (EPC) at DMAFB will decide if the environmental consequences resulting from the proposed action including Alternatives A and B and the

No Action alternative, qualify for a Finding of No Significant Impact (FONSI) or if an Environmental Impact Statement (EIS) will be required.

At the DMAFB level a final decision will determine the selection of a new fence, or the choice of Alternative A, placement of personnel in vehicles along the perimeter, or Alternative B, use of a laser and camera security system. A tentative decision has already identified the fence as a preferred alternative but that decision would be reconsidered. Further, the No Action alternative could still be selected.

### 1.3 LOCATION OF PROPOSED ACTION

The preferred alternative for the security upgrade is shown on two maps in Appendix A. The portion of 32,000 linear feet near the flight line in the more developed portion of DMAFB, would consist of entirely new fencing following an existing but deteriorated fence line. Various places along this segment, eight gates which would be 20 feet wide would be installed, and two removable aircraft gates, each 120 feet would also be placed near the southeast end of the flight line. Further, along the north margin of the installation, in the vicinity of Swan Gate, some 550 feet of an existing fence 6 feet high would be renovated with 3-strand barbed wire. The portion of the new fence also approximately 550 feet just south of the existing section to be renovated would be constructed of a removable design. The portion of approximately 37,000 linear feet in the more remote, eastern portion of DMAFB and would occupy the same location as the deteriorated old fence. No gates would be present in this segment. All of the new fencing, both in the flight line portion of DMAFB and the more remote eastern portion, would consist of a chain-link type fence, 7 feet high with a diagonal barbed wire segment extending 15 inches above the chain link portion. A map in Appendix A shows the various types of fencing, gates, etc.

However, the 355 SFS has identified two alternatives for increasing perimeter security at DMAFB, designated Alternative A and Alternative B. An alternative of "No Action" is also on record. Under Alternative A, the 355 SFS would position guards along dirt roads following the same line as proposed for the fence in the preferred alternative. Instead of a fence, Alternative A would require construction of a dirt road and continual presence of personnel in vehicles. Approximately one guard per 300 feet or a total of 230 guards would be required to be on duty at any time, so over 800 total security personnel would need to be available for this duty on a schedule to provide continual coverage. On the map in Appendix A, the roads would follow the proposed fence lines, thus necessitating removal of vegetation, with 550 feet of the existing fence improved in the vicinity of the Swan Gate, just as with the preferred alternative.

Under Alternative B, the 355 SFS would construct a series of approximately 250 light poles to place camera and lighting systems. Further, fiber optic and electrical lines would be required. On the map in Appendix A, the electronic system would essentially occupy the same line as followed by the fence in the preferred alternative and would have to be cleared of vegetation for effective use of the remote sensing system, again with 550 feet of the

existing fence improved in the vicinity of the Swan Gate, as with the preferred alternative and Alternative A.

## 1.4 SCOPING AND ENVIRONMENTAL ISSUES

### 1.4.1 SCOPING PROCESS

An interdisciplinary team conducted a scoping process for this project to identify relevant environmental issues. An environmental issue is defined as the effect of an unresolved conflict on a physical, biological, social or economic resource. The team identified a range of environmental issues potentially relevant to the decision to be made. The team examined these issues and eliminated non-relevant items from study while analyzing all relevant environmental issues for potential environmental impacts.

### 1.4.2 RELEVANT ENVIRONMENTAL ISSUES

The team identified these issues as germane to the project: land use, air quality, soils, health and safety, biological resources, waste, socio-economic, and quality-of-life.

### 1.4.3 NON-RELEVANT ENVIRONMENTAL ISSUES

The team considered other environmental issues, but determined that they are associated with limited or no impact in this project. The planned construction would have no affect on geology below the depth of soils since construction under the preferred alternative or Alternative A or B would not be below the depth of soils. The project would have no affect on water resources. The project would have no affect on cultural resources since no items of historical or archaeological significance are in the area.

## 1.5 PERMITS, ENTITLEMENTS, AND LICENSES

A Pima County Air Quality Permit is required for ground disturbances in construction.

## 2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

### 2.1 DESCRIPTION OF ALTERNATIVES INCLUDING NO ACTION AND PROPOSED ACTION

In this section alternatives that have been identified as legitimate are compared to the alternative of No Action. A preferred alternative is readily identified because of the presence of other support facilities and prior use of the area for similar functions. However, Alternatives A and B are logistically feasible since they would occupy the same site as the preferred alternative, with these same factors relating to the selection.

### 2.1.1 NO ACTION

Under the No Action alternative, the 355 SFS would not install this particular project. Hence weakness in security at DMAFB would continue.

### 2.1.2 PROPOSED ACTION

Under the preferred alternative, Alternative A, or Alternative B, the 355 SFS would construct an improved method of securing the perimeter of DMAFB. The only differences between the preferred alternative and Alternative A or B would be the nature of the security measures employed (map, Appendix A).

## 2.2 SUMMARY OF ENVIRONMENTAL IMPACTS

The following matrix summarizes probable effects of the preferred alternative, Alternatives A or B, and the No Action alternative on the existing baseline environmental issues, if any of the alternatives are implemented.

COMPARATIVE MATRIX

RELEVANT ISSUES	NO ACTION	PROPOSED ACTION at preferred alternative or Alternative A or B
LAND USE	Sites remain exposed soils or are covered with native vegetation.	Under all three Alternatives, two areas of lengths 37,000 feet and 32,000 feet, width 6 feet, would be cleared. (Existing fence of 550 feet would be upgraded.)
AIR QUALITY	No impact.	Under all three Alternatives, brief increases in carbon monoxide, particulate, and nitrogen oxide. Under Alternative B a long-term increase in emissions and dust from vehicle patrols.
SOILS	Some soils remain exposed and open to erosion, but native vegetation covers largest area.	Approximately half of the total security areas of 37,000 feet by 6 feet and 32,000 feet by 6 feet to be cleared of vegetation under all three alternatives. Other areas are already exposed.
SOLID WASTE	No impact	Waste collected from construction and salvageable materials recycled off base.
BIOLOGICAL	Areas remain covered by native vegetation or are already exposed soils.	Approximately half the 37,000 by 6 feet perimeter in the eastern segment will require removal of vegetation under any of the Alternatives. Other areas already have exposed soils.

HEALTH AND SAFETY	Continued risk of incursion by terrorist or criminal elements.	Brief increase in possibility of accident and noise exposure in construction. Long-term reduction of possibility of terrorist or criminal incident.
SOCIO-ECONOMIC AND QUALITY OF LIFE	No impact.	Temporary increase in employment from construction contract. Under Alternative A, additional military personnel and vehicles would continually patrol perimeter of DMAFB.

### 3.0 AFFECTED ENVIRONMENT

#### 3.1 LAND USE

The subject perimeter lands, whether used for the preferred alternative or Alternative A or B are in an undeveloped area of DMAFB that has been reserved for perimeter security of the installation. No buildings or other facilities are in this perimeter security zone.

#### 3.2 AIR QUALITY

Vehicles, aircraft, firing ranges, and other urban sources of pollution locally impact air quality at the preferred location and Alternatives A and B.

#### 3.3 HEALTH AND SAFETY

The subject perimeter security area, whether used for the preferred alternative or Alternatives A or B, is either exposed soil or is covered with native vegetation typical of the area. The remaining portions of barbed wire fence are so deteriorated that they cannot effectively contribute to their original purpose of security. Noise levels in the immediate area of the flight line are as high as 85 LDN, though noise levels in the western segment are between 65 and 70 LDN while those in the more eastern area of the proposed fence are below 65 LDN.

#### 3.4 GEOLOGY AND SOILS

The project would have no impact on geology below the level of soils but would have impacts on soils at and near the surface whether the site is used for the preferred alternative location or for Alternative A or B. The soils in this area are of the Mojave type, consisting of sand-sized particles, weathered from the surrounding exposed rocks in several mountain ranges, fringing the Tucson Valley. Mojave soils are very deep (60 inches) but are not particularly fertile and, when exposed, are subject to wind and water erosion. Mojave soils are of low permeability of  $3 \times 10^{-4}$  to  $3 \times 10^{-3}$ .

#### 3.5 BIOLOGICAL



The perimeter safety zone, whether used for the preferred alternative or Alternative A or B, are cleared so are essentially exposed soils along the eastern area of approximately 32,000 feet by 6 feet. Approximately two thirds of the eastern area of 37,000 by 6 feet is also exposed soil but approximately one third of the area is overgrown with typical native vegetation of Southern Arizona.

Approximately 46 percent (4,741 acres) of the land at DMAFB is unimproved and inhabited by native plant communities. The remaining 54 percent (5,892 acres) is devoted to mission activities and consists of graded and developed land.

DMAFB lies within the biotic region known as the Sonoran Desert. This region is uniquely characterized by an unreliable and uneven bi-seasonal rainfall pattern, separated by periods of spring and fall drought and short duration freezing temperatures. The Sonoran Desert reaches its northern limits in central Arizona, where it contains two distinctive subdivisions: (1) the Lower Colorado River Valley, and (2) the Arizona Upland.

The Lower Colorado River Valley subdivision is the driest of the Sonoran subdivisions because of the combination of high temperature and low rainfall. Plant growth is typically both open and simple, reflecting the intense competition between plants for the scarce water resource.

The Arizona Upland subdivision has been described as the best watered and least desert-like desert scrub in North America. The vegetation in this subdivision is more varied than in the Lower Colorado River Valley subdivision and consists of more succulent species among the leguminous trees. More than 12 species of cholla (*Opuntia spp.*) cacti are represented in and are largely confined to this subdivision in addition to the abundant Saguaro (*Carnegiea gigantea*), barrel (*Ferocactus spp.*), and various pincushion (*Mammillaria spp.*) cacti.

The vegetation habitat of DMAFB represents an overlap area for the Lower Colorado River Valley subdivision and the Arizona Upland subdivision. The ecotone between the two subdivisions is a common feature along the margins of the valleys in this area. This ecotone contains a unique variety of both species from the drier valleys and the lower bajada. Some of the species contributing to the diversity of this community included ocotillo (*Iouquieria splendens*), jojoba (*Simmondsia chinensis*), desert Christmas cactus (*Opuntia leptocaulis*), Engelmann prickly pear (*Opuntia phaeacantha* var. *discata*), fishhook pincushion (*Mammillaria microcarpa*), and Fendler hedgehog (*Echinocereus fendleri*). Dominant species along drainages include western honey mesquite (*Prosopis glandulosa* var. *torreyana*), cat claw acacia (*Acacia greggii*), and blue palo verde (*Cercidium floridum*). Lesser species are present but too numerous to enumerate (USAF, November 1992).

A brief inspection revealed the presence of various chollas, prickly pear, creosote, and mesquite trees in the areas proposed as the preferred alternative and Alternatives A and B for the Munitions Maintenance facility and the build-up pad. However, those varieties are

quite common. A number of barrel cacti, ocotillo, and pin cushion cacti are also present; thus several species which fall under some protection are identified in the area.

The creosote bush (*Larrea tridentata*) - white bursage (*Ambrosia dumosa*) vegetation association of DMAFB supports a wide variety of animal life including the coyote (*Canis latrans*), jackrabbit (*Lepus spp.*), desert cottontail (*Sylvilagus audubonni*), mule deer (*Odocoileus hemionus*), cactus wren (*Canpylorhynchus brunneicapillus*), curve billed thrasher (*Taxostoma curvirostre*), Gambel's quail (*Callipepla gambelii*), Inca dove (*Columbina inca*), and numerous rodents. More than 120 species of birds are present or use the desert scrub community of the base. These species include hawks, owls, doves, quail, thrashers, wrens, roadrunners, buntings, sparrows, warblers, and crows. Common reptiles indigenous to the base include the regal horned lizard (*Phrynosoma solaris*), eastern fence lizard (*Sceloporus undulatus*), gopher snake (*Pituophis melanoliucus*), and western diamondback rattlesnake (*Crotalus atrox*).

The common reptiles and amphibians are usually found only in undeveloped areas. Invertebrate wildlife, including insects, spiders, and snails, probably totaling in excess of 1,000 species are in the area.

The current DMAFB Fish/Wildlife Management Plan is dated 2001. It is a component plan of the base's Integrated Natural Resources Management Plan (INRMP) dated April 1998.

Under the Arizona Native Plant Law, several species, including barrel cactus (*Ferocactus spp.*), ocotillo (*Fonquieria splendens*), and pin cushion cactus can legally be moved from a locale but must be replanted elsewhere. There are 10 different species of pin cushion cactus. All are in the Mammillaria family of small, attractive and diverse cacti. They are typically barrel shaped and less than 6 inches in height with short, dense, gray spines surrounding a longer red hooked central spine.

Although a number of federally and state-listed threatened, endangered, protected, and status review (i.e., species under review for possible listing) plant and animal species occur in the vicinity of DMAFB, little evidence exists to indicate their presence on base. In September and October 1990, all undeveloped areas of the base were surveyed for federally listed species with a reasonable potential for occurring. No signs of any species were found nor are they thought to occur on base. Threatened or endangered plant and animal species residing or transient within a 10-mile radius of DMAFB are listed as follow (USAF, November 1992).

#### PLANTS

Pima pineapple cactus ( <i>Coryphantha scheeri</i> var. <i>robustispina</i> )	Endangered
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#### BIRDS

Cactus ferruginous pygmy-owl ( <i>Glaucidium brasiliarum cactorum</i> )	Endangered
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## MAMMALS

Sanborn's lesser long-nosed bat  
(*Leptonycteris curasoae yerbabuenae*)

Endangered

### 3.6 SOLID WASTE

Since the preferred alternative and Alternatives A and B are currently exposed soils or are undeveloped desert lands, there is no association of these sites with solid waste or hazardous waste in any form.

### 3.7 SOCIAL, ECONOMIC, AND QUALITY OF LIFE

The preferred alternatives and Alternatives A and B are all in an area of DMAFB devoted to security of the installation by providing a barrier to access from outside.

## 4.0 ENVIRONMENTAL IMPACTS

### 4.1 NO ACTION

Approximately two thirds of the eastern segment of the perimeter security area of 37,000 feet by 6 feet, or 148,000 square feet would remain as exposed soils under either the preferred alternative or Alternatives A or B. Virtually all of the western perimeter area of 32,000 feet by 6 feet would also remain in their current state of exposed soils under any of the Alternatives. Substantial native vegetation would remain on approximately 74,000 square feet in the eastern segment of the perimeter security area. Some 550 feet of existing fence running east from the vicinity of Swan Gate would remain in somewhat deteriorated condition.

### 4.2 PROPOSED ACTION

#### 4.2.1 LAND USE

Under the preferred alternative or Alternative A or B, the perimeter security upgrade would occupy 414,000 square feet in the two segments of 32,000 feet by 6 feet and 37,000 by 6 feet.

#### 4.2.2 AIR QUALITY

Some particulates and vehicle emissions would be generated during clearing of the line and subsequent construction. If more than 300 feet of trenching is needed for utility connections or other purposes, a possibility under Alternative B, a special permit will be required by Pima County. If monitoring procedures of dust raised show particulates have exceeded defined limits, suppression actions like watering

will be employed. Under Alternative A, substantial additional vehicle emissions would be generated from patrolling security vehicles

#### 4.2.3 HEALTH AND SAFETY

The construction stage under any of the Alternatives would present some possibility of accident, but no greater than any equivalent project. After the perimeter upgrade, whether under the preferred alternative or Alternative A or B, improved security and safety over current practice would result. The possibility of incursion by terrorist or other criminal elements would be lessened. However, under Alternative A the presence of additional vehicles and personnel could increase the possibility of an accident during routine surveillance. In addition, development of any of the Alternatives in the area of the flight line would subject personnel to noise levels of over 85 LDN. Hence ear protection would be required for workers, as is routine for any activities in this area.

#### 4.2.4 GEOLOGY AND SOILS

The project would have no impact on geology below the level of soils, since construction would not be below the level of soils. Under the preferred alternative, Alternative A, or Alternative B, some 78,000 square feet of soils that are now covered by native vegetation would be exposed to weathering. These soils are in the eastern segment of the perimeter that has been overgrown in recent years.

#### 4.2.5 BIOLOGICAL

Since an area of 78,000 square feet along the eastern segment has become covered with native desert vegetation in recent years, removal of that area of vegetation would be required under the preferred alternative or Alternatives A or B. Species requiring protection in the area are barrel cactus, pin cushion cactus, and ocotillo. Relocation of members of those species to other locations would be required. No threatened or endangered species of birds, mammals, or reptiles are present in the area. Common species resident in the area would naturally relocate to other similar nearby areas.

#### 4.2.6 SOLID WASTE

The construction phase would temporarily generate additional solid waste which will be removed and disposed or recycled in accordance with appropriate regulations. After completion, no additional solid waste is expected to be produced from use of these facilities, since the same procedures would be ongoing as at the old facilities.

#### 4.2.7 SOCIAL, ECONOMIC, AND QUALITY OF LIFE

The preferred alternative and Alternative B are not associated with any increases in personnel, so no additional housing, schools or other public services would be needed. However, Alternative A would require a total of approximately 800 additional personnel to be assigned to duty along the perimeter. Though some of these personnel would be part of the 355 SFS already assigned to DMAFB, the great majority would be reassigned to DMAFB. Hence some living quarters and other community services would have to be provided, though facilities in the general community rather than on DMAFB could be utilized.

#### 4.3 CUMULATIVE IMPACTS

In 2002 an Environmental Assessment on Construction of Munitions Storage Facilities by the Arizona Air National Guard was completed. To date in year 2003, Environmental Assessments on Construction of a Hazardous Cargo Pad and on Combat Search and Rescue (CSAR) Maneuvers at DMAFB have been completed. An Environmental Assessment on Construction of a Bank of America Facility is pending along with an Environmental Assessment on Construction of a Facility for Pararescue Support. The present project has no cumulative impacts related to any of these other recent projects.

#### 5.0 CONCLUSION

A review of this document and coordination with the appropriate agencies indicate that the project as proposed would have no significant impacts upon the existing environment. No differences are evident between the preferred action and Alternatives A and B in environmental impacts; the only difference being the better logistical function of the project at the preferred location. Further, there have been no other projects in this locale which have required Environmental Assessments since NEPA was passed in 1970, though nearby facilities date from prior to that date. Thus the proposed project does not add to any cumulative negative impacts from other recent nearby activities, but will make an overall net positive contribution to protection of the environment by limiting access to the area. It is recommended that a Finding of No Significant Impact (FONSI) be signed.

Therefore, preparation of an Environmental Impact Statement (EIS) is not required.

## Appendix A

### Maps and Diagrams



## Appendix B

### Documentation and Coordination





BASE ENGINEER WORK REQUEST (See Reverse for Instructions)					Form Approved OMB No. 0704-0188	
<small>Public reporting burden for this collection of information is estimated to average .3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to the Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project 0704-0188, Washington DC 20503. Please DO NOT RETURN your form to either of these addresses. Send your completed form to HQ AFESC/DEMG.</small>						
<b>SECTION I - TO BE COMPLETED BY REQUESTER</b>						
1. FROM (Organization)		2. OFFICE SYMBOL	3. DATE OF REQUEST		4. WORK REQUEST NO. (For BCE Use)	
355 Security Forces Squadron		SFOSA	28 Jul 99		38641	
5. NAME AND PHONE NO. OF REQUESTER			6. REQUIRED COMPLETION DATE		7. BUILDING, FACILITY OR STREET ADDRESS WHERE WORK IS TO BE ACCOMPLISHED	
Ron Hoover 228-6947			15 Sep 99		Flightline Fence Upgrade	
8. DESCRIPTION OF WORK TO BE ACCOMPLISHED (Include Sketch or Plan, when appropriate) Upgrades are required to support Anti-terrorism efforts to have the flightline boundary fully enclosed. There are numerous points that offer direct non-detectable avenues of approach. COMACC directives and other vulnerability assessments recommend that the installation reduces access to the flightline area.						
9. BRIEF JUSTIFICATION FOR WORK TO BE ACCOMPLISHED (Not required for maintenance and repair) Degradation of security detection and capabilities against terrorist activities directed at priority resources are inconsistent. Unauthorized entry by vehicle and pedestrian traffic is a high probability. This will result in increasing security incidents and deficiencies. It is imperative that priority resources be secured and protected with proper physical measures. Additionally, with the flightline being enclosed, this will reduce flightline intrusion by personnel and wildlife.						
10. DONATED RESOURCES						
FUNDS		LABOR		MATERIAL		CONTRACT BY REQUESTER <input checked="" type="checkbox"/> NONE
11. NAME OF REQUESTER			12. GRADE OF REQUESTER		13. SIGNATURE OF REQUESTER (See Reverse of Form)	
Ron Hoover			TSgt		R/H	
14. COORDINATION						
<b>SECTION II - FOR BASE CIVIL ENGINEER USE</b>						
15. WORK ORDER (Place an "X" in the appropriate box.)						
IN-SERVICE		SELF-HELP		CONTRACT		SABER
16. DIRECT SCHEDULED WORK (Place an "X" in the appropriate box.)						
EMERGENCY		URGENT		ROUTINE		SELF-HELP M/C
17. SELF-HELP (Place an "X" in the appropriate box.)						
BRIEFING REQUIRED			ADEQUATE COORDINATION			INSPECTION REQUIRED
<b>SECTION III - COMPLETE ONLY IF WORK IS TO BE ACCOMPLISHED BY WORK ORDER</b>						
18. WORK CLASS		19. PRIORITY		20. ESTIMATED HOURS		21. ESTIMATED FUNDED COST
22. ESTIMATED TOTAL COST		23. THERE IS NO NEED FOR AN ENVIRONMENTAL ASSESSMENT (AFR 19-2)		24. A WRITTEN ASSESSMENT IS BEING/HAS BEEN PROCESSED		25. APPROVED
26. DISAPPROVED		27. REMARKS				
<b>SECTION IV - APPROVING AUTHORITY</b>						
28. NAME AND GRADE (Please Type or Print)				29. SIGNATURE		30. DATE

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**Miller Charles Civ 355 CES/CEVA**

**From:** Lisa Gwen N Civ 355 CES/CEVA  
**Sent:** Tuesday, July 01, 2003 10:29 AM  
**To:** Miller Charles Civ 355 CES/CEVA  
**Subject:** RE: brown spider

It's hard to pin down just one scientific name for the pincushion cactus because there are so many of them. I have a description you could use, however.

"Pincushion Cactus is a generic name given to the Mammillaria family of small, attractive and diverse cacti. There are 10 species of pincushion cactus in Arizona. They are typically barrel shaped and less than 6" in height with short, dense, grey spines surrounding a longer, dark red, hooked central spine."

The ocotillo is Fouquieria splendens.

-----Original Message-----

**From:** Miller Charles Civ 355 CES/CEVA  
**Sent:** Tuesday, July 01, 2003 9:25 AM  
**To:** Lisa Gwen N Civ 355 CES/CEVA  
**Subject:** RE: brown spider

Great. Add this at the next safety meeting. I may not be there because of this head cold I have had for over a week.

CW

-----Original Message-----

**From:** Lisa Gwen N Civ 355 CES/CEVA  
**Sent:** Tuesday, July 01, 2003 8:37 AM  
**To:** Miller, Charles  
**Subject:** brown spider

<< File: brown spider.htm >>

FYI. Arizona doesn't have brown recluse spiders, per se. Instead, we have a close relative--the Arizona brown spider. It is still a nasty little thing and the same precautions should be taken with it as well as black widows and the other spiders we have here. As a matter of fact, we are more likely to encounter black widows than the brown spider because they are so much more visible. And, as we know, a black widow can pack a pretty nasty punch, too.



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## INTERDISCIPLINARY TEAM

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Chris Bagnati, Community Planning

Janie McLaury, Public Affairs

Lt. G. Boone, Bioenvironmental

Capt. Kim Hoe Chin, Legal Issues

Mike Barnes, Safety

Patrick Ross, Air Pollution Issues

Fred J. Spano, TSgt, Installation Antiterrorism/Force Protection Officer





DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 355TH WING (ACC)  
DAVIS-MONTHAN AIR FORCE BASE, ARIZONA

AUG 22 2003

MEMORANDUM FOR 355 WG/CV

FROM: 355 WG/JA

SUBJECT: Legal Review – Environmental Assessment and Finding of No Significant Impact  
for Upgrade of Perimeter Security Measures

1. The 355th Security Forces Squadron wishes to upgrade perimeter security at Davis-Monthan Air Force Base. I have reviewed the attached Environmental Assessment (EA) and Finding of No Significant Impact (FONSI), and find them to be legally sufficient.
2. The National Environmental Policy Act (NEPA) requires the Air Force to incorporate environmental impacts into this decision making process. This requirement is met by accomplishing a Categorical Exclusion, an EA, or an Environmental Impact Statement (EIS). When a proposed action is too small to require an EIS but too large to be categorically excluded, an EA must be prepared. Every EA must lead to either a FONSI, a decision to prepare an EIS, or disapproval of the proposal. The attached EA and FONSI meet the requirements of the NEPA.
3. In this case, an EA is required because no categorical exclusion applies. The EA was completed on 7 Jul 03. A proposed FONSI is attached for your signature. A finding that construction of the proposed fences and additions would result in no significant impact to the environment is reasonable.
  - a. Currently, the security barrier in the southwestern area of the installation is severely deteriorated. About one-third of the fence is completely missing, and vegetation has grown over the former fence line. Also, the remaining sections of the fence are composed of three-strand barbed wire and are seriously deteriorated. Second, no fence exists in the immediate area of the flight line, with the exception of the northern and western margins. Last, a six-foot high fence exists near Swan Gate.
  - b. The perimeter security area either is exposed soil or is covered with native vegetation typical of the area.
    - i. The preferred plan would entail construction of a seven-foot high chain link fence, with an additional extension of barbed wire fifteen-inches high, along those segments of the fence that are deteriorated or non-existent. Additionally, the six-foot high fence near Swan Gate would be renovated with three-strand barbed wire. Although employment would increase temporarily, that temporary increase is not sufficient to require additional housing, schools, or other public services.

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ii. Alternative A would require the presence of armed guards patrolling the fence line, specifically, one guard per 300 feet or 800 security personnel in total. This plan would increase the population of the installation sufficiently to require construction of new housing or school facilities, although off-base facilities may be used.

iii. Alternative B would require the construction of a series of approximately 250 light poles for a camera and lighting system along the perimeter. Employment would be temporarily increased but not sufficiently to require additional housing, schools, or other public services.

4. As they meet the requirements of the NEPA, I recommend you approve both the EA and FONSI. Please contact me at 8-3733/5242 should you have any questions concerning this matter.

*Mr*  


HOECHIN KIM, Capt, USAF  
Chief, Civil Law

I concur.



THOMAS G. CROSSAN, JR., Lt Col, USAF  
Staff Judge Advocate



## STAFF SUMMARY SHEET

WG# 507

TO	ACTION	SIGNATURE (Surname), GRADE AND DATE	TO	ACTION	SIGNATURE (Surname), GRADE AND DATE
1 355 MSG/CC	Coord	<i>[Signature]</i> LT Col 4 Oct 03	6 355 WG/CV	Sign	<i>[Signature]</i>
2 355 WG/JA	Coord	<i>[Signature]</i> Lt Col 22 Aug 03	7		
3 355 WG/CCA	Coord	<i>[Signature]</i>	8		
4 355 WG/CCE	Process	<i>[Signature]</i> Capt, (25)	9		
5 355 WG/CS	Coord	<i>[Signature]</i> Lt Col 26 Aug 03	10		

SURNAME OF ACTION OFFICER AND GRADE C.W. Miller, GS-11	SYMBOL 355 CES/CEVA	PHONE 8-4035	TYPIST'S INITIALS CWM	SUSPENSE DATE
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## SUBJECT

Upgrade Perimeter Security Measures at Davis-Monthan AFB (DMAFB)

## DATE

JUL 25 2003

## SUMMARY

1. PURPOSE: to obtain 355 WG/CV signature on the EA and Finding Of No Significant Impact (FONSI) documents on a proposed new perimeter security fence at DMAFB.

2. BACKGROUND: A fence along the southeast perimeter area at DMAFB has deteriorated beyond effective use. To upgrade security the 355 SFS has proposed addition of a new chain link fence 7 feet tall capped by a barbed wire segment of 15 inches along approximately 37,000 linear feet in the southeast portion of the installation. Further, the 355 SFS has proposed a similar new fence in an additional area of approximately 32,000 linear feet in the locale of the flightline where no fence had been. Finally, an existing segment of 550 feet of fence due east of the Swan Gate would also be upgraded. The 355 SFS has designated two Alternatives to the proposed fence construction which would also upgrade perimeter security. Under Alternative A, additional personnel in vehicles would patrol the perimeter. Under Alternative B, a series of laser and camera devices would be placed on poles around the perimeter.

3. DISCUSSION: The National Environmental Policy Act of 1969 requires preparation of an EA for each project (Tab 2). A FONSI document is also included for the project (Tab 1). The FONSI document summarizes the EA document and states that the project is too small to constitute a "major federal action resulting in significant impacts to the environment," and therefore does not require preparation of an Environmental Impact Statement (EIS).

4. RECOMMENDATION: 355 WG/CV sign the FONSI document at Tab 1.

*[Signature]*  
KARL S. BOSWORTH, Lt Col, USAF  
Commander, 355 CES  
909-8670

2 Tabs

1. FONSI on Perimeter Security
2. EA on Perimeter Security

CEVA \_\_\_\_\_ CEV \_\_\_\_\_ CEC \_\_\_\_\_ CE-2 \_\_\_\_\_

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8003 112 1112

## FINDING OF NO SIGNIFICANT IMPACT

**1.0 NAME OF ACTION:** Upgrade perimeter security at Davis-Monthan Air Force Base (DMAFB), Arizona.

**2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:** The 355th Security Forces Squadron (355 SFS) will construct a chain link fence 7 feet high with an additional extension 15 inches high including several strands of barbed wire. The fence will encompass much of DMAFB in two segments, an eastern segment of approximately 37,000 feet and a western segment of 32,000 square feet, both segments being approximately 6 feet wide. A segment of an existing fence 6 feet tall which extends due east from the vicinity of the Swan Gate would be improved with three strand barbed wire. The 355 SFS designated the fence as a preferred alternative and identified two other security measures as Alternatives A and B, for consideration. Alternative A would assign personnel to physically guard the perimeter but would require a perimeter road for vehicles. Alternative B would utilize approximately 250 light poles to provide laser and photographic monitoring. The line would also have to be cleared for function of laser and photographic monitoring.

**3.0 SUMMARY OF ANTICIPATED ENVIRONMENTAL IMPACTS:**

Implementing the proposed action at the preferred location or either of two alternate locations would have the following impacts on the local environment:

**3.1 Land Use.** The project will occupy a total of approximately 414,000 square feet. These lands are currently unoccupied.

**3.2 Air Quality.** The proposed action will have minimal impacts on air quality during construction.

**3.3 Health and Safety.** During construction, the project will present a slight possibility of construction accidents, but no more than any similar project of this magnitude. Routine use of ear protection equipment would be required for workers in the immediate area of the flight line. After construction, the improved facilities and their locations will greatly improve safety by markedly improving defense against incursion of DMAFB by terrorist or other criminal elements.

**3.4 Geology and Soils.** The proposed action will have no impacts on geology below the level of soils since the proposed facilities will not require construction below the level of soils. The eastern portion of the fence will cover approximately 111,000 square feet of soils, which are currently covered by native vegetation typical of the region. The remainder of the fence will cover soils which are already exposed.

**3.5 Water.** The proposed action will have no impacts on surface or groundwater resources.

**3.6 Solid Waste.** Construction activities will produce a temporary increase in waste materials, which will be disposed in approved landfills.



**3.7 Cultural Resources.** The proposed action will have no impacts on cultural resources (items of historical and archaeological significance).

**3.8 Biological Resources.** Construction of a portion of the fence in the eastern segment will require removal of approximately 78,000 square feet of native vegetation typical of the area which is remote from the more developed western portion of DMAFB. Most of this vegetation consists of common species including prickly pear cactus, chollas, creosote, and mesquite trees. However, a number of barrel cactus, ocotillo, and pin cushion cactus are present and would require replanting at another location. Birds, animals, and reptiles would naturally relocate to nearby areas, which are similar in native vegetation to that vegetation to be removed.

**3.9 Social, Economic, and Quality of Life.** The preferred alternative and Alternative B are not associated with any increase in personnel; hence there should be no additional demands on housing, schools, and other social services. Selection of Alternative A, however, would require 800 additional personnel, hence the demands on local services, housing, etc., would increase.

**4.0 CONCLUSION:** Based on the findings of the Environmental Assessment, (2003), addressing "Upgrade perimeter security at Davis-Monthan AFB," and adherence to standard operating procedures with regard to site preparation and construction, operation, and maintenance, no significant impacts are expected from the proposed action. No negative cumulative impacts are identified with this project as associated with any other nearby activities. By limiting access to the area, the improved security will improve aspects of the environment. An issuance of a Finding of No Significant Impact (FONSI) is thus warranted. This action does not constitute a major federal action of significant magnitude to warrant preparation of an Environmental Impact Statement.

  
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MICHAEL W. SPENCER, Colonel, USAF  
Vice Commander, 355 Wing

  
\_\_\_\_\_  
Date



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